

## Abstract of the Disclosure

An improved modem architecture and associated method that integrates modem and line-isolation circuitry so as to achieve modem functionality and system-side isolation functionality on a single integrated circuit while also providing a modem interface that allows synchronous modem transmission protocols to be implemented through an asynchronous serial interface is disclosed. For example, one such type of synchronous modem transmission protocol is the HDLC (high-level data link control) protocol. According to the techniques disclosed herein, data and control information of an HDLC protocol may be presented at transmit and receive pins of a modem/system side DAA through an UART even though the UART may be an asynchronous serial receiver transmitter. Thus, both transmit and receive data transfers of a serial modem protocol may be implemented through an asynchronous serial interface.